



Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137



08 January 2019

Federally Enforceable District Origin Operating Permit Statement of Basis

Source: Keebler Company
2287 Ralph Ave
Louisville, KY 40216

Owner: Kellogg's USA
One Kellogg Square
Battle Creek, MI 49017

Application Documents: See Table 8 in section I

Public Comment Date: 12/04/2018

Permitting Engineer: Rick Williams

Permit Number: O-1610-19-F

Plant ID: 1610

SIC: 2052

NAICS: 311821

Introduction:

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

This is a periodic permit renewal. This action also removes GHG limits in General Condition 10, to comply with the U.S. Supreme Court's June 2014 opinion in *Utility Air Regulatory Group v. EPA*.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), particulate matter less than 10 microns (PM₁₀); and particulate matter less than 2.5 microns (PM_{2.5}). Jefferson County is classified as a nonattainment area for ozone (O₃) and partial non-attainment area for sulfur dioxide (SO₂). This facility is not in the SO₂ nonattainment area.

Permit Application Type:

☐ Initial issuance

Permit Revision

☒ Permit renewal

☐ Administrative

☐ Minor

☐ Significant

Compliance Summary

☒ Compliance certification signed

☐ Compliance schedule included

☐ Source is out of compliance

☒ Source is operating in compliance

I. Source Information**1. Product Description:**

The Keebler Company is a baked goods manufacturing facility.

2. Process Description:

The raw materials are grinded and mixed to produce batter that is mixed with flavorings before being sent through baking ovens

3. Site Determination:

There are no other facilities that are contiguous or adjacent to this facility.

4. Emission Unit Summary:

Emission Unit	Equipment Description
U1	Seven natural gas baking ovens used for manufacturing baked food products Cleaning and sanitizing operations
U2	Bauermeister sugar grinding system, model UMT 4.3
IA-1	York Shipley natural gas boiler, with a capacity of 5.02 MMBTU/hr
IA-2	Imeco XLP evaporative condensers: Model XL-415, with a capacity of 600 gpm Model XL-630, with a capacity of 900 gpm Model XL-660, with a capacity of 900 gpm Railcar unloading operation Four flour silos Two sugar silos Ten process hoppers Ten process mixers Cookie Tumbler Line 2 bagging operation Raw Material hand mixing Sugar use bin
IA-3	Invert sugar process operation

5. Fugitive Sources:

There are no fugitive source emissions at this facility

6. Permit Revisions:

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
29510-13-F	07/18/2013	09/17/2013	Initial	Initial permit issuance
O-1610-15-F	06/27/2015	07/28/2015	Sig	EU1 – incorporate C-1610-1000-15-F (Replace oven #2)
O-1610-15-F (R1)	N/A	05/10/2016	Admin	EU-IA2 – replace Mixer 1 (IA2.E18.01)
O-1610-15-F (R2)	N/A	7/10/2018	Admin	EU-IA2 – Replace: Hopper 2 (IA2.E17.02), Hopper 10 (IA2.E17.10), and Mixer 2 (IA2.E18.02). Add Sugar Use Bin (IA2.E20)
O-1610-19-F	12/04/2018	01/08/2019	Renewal	List U3-E9 invert sugar process as IA Correct description of C1 Remove CO ₂ Powdered sugar mixers, from permit. They have been removed from the facility Expand IA list to show each piece of equipment individually Correct the incorrect control device assignments listed in the application on page 5-5.

7. Construction Permit History:

None

8. Permit Renewal-Related Documents

Document Number	Date Received	Description
92753	06/28/2018	Permit renewal application – public version
92737	06/28/2018	Permit renewal application – CBI version
93486	07/31/2018	Clarification of application questions
	08/01/2018	Response to request for clarification
94081	09/06/2018	APCD decision on Kellogg CBI claims and company response
94734	10/04/2018	
95761	10/29/2018	Clarification of control device assignment

9. Emission Summary:

Pollutant	District-Calculated Actual Emissions (ton/yr) 2017 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	3.31	No
NO_x	3.95	No
SO₂	0.02	No
PM₁₀	4.96	No
VOC	14.1	Yes
Total HAPs	0.26	No
Single HAP	360 pounds	No

10. Applicable Requirements

- | | | |
|------------------------------------|---|------------------------------------|
| <input type="checkbox"/> 40 CFR 60 | <input checked="" type="checkbox"/> SIP | <input type="checkbox"/> 40 CFR 63 |
| <input type="checkbox"/> 40 CFR 61 | <input checked="" type="checkbox"/> District Origin | <input type="checkbox"/> Other |

11. Referenced MACT Federal Regulations:

The source has no current or future MACT requirements.

12. Referenced non-MACT Federal Regulations:

There are no federal regulations for this source.

II. Regulatory Analysis**1. Acid Rain Requirements:**

The Keebler Company is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements:

Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. The Keebler Company does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r):

The Keebler Company does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. Basis of Regulation Applicability

a. Plantwide

The Keebler Company is a potential major source for the VOC emissions. Regulation 2.17 – *Federally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

The Keebler Company requested a plant wide emission limit of 99 tons per year for VOC

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an Annual Compliance Report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

b. Emission Unit U1 – Baking Ovens/Cleaning and Sanitizing

i. Equipment:

Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E1: Baking Oven #2 Direct-fired	6.48 MMBtu/hr	2015	7.09 7.25 STAR	Regulation 7.06 establishes emission standards for indirect heat exchanges installed after to 1972.
E2: Baking oven #3 Direct fired	5.28 MMBtu/hr	1954	6.10 6.24 STAR	

Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E3: Baking oven #4 Direct fired	3.94 MMBtu/hr	2004	7.09 7.25 STAR	emission standards for process gas streams constructed before 1972. Regulation 7.09 does the same for process gas streams constructed after 1972.
E4: Baking oven #5 Direct fired	4.56 MMBtu/hr	1976	6.24 7.09 STAR	
E5: Baking oven #7 Indirect fired	7.90 MMBtu/hr	1980	7.06 7.25 STAR	Regulation 6.24 establishes emission standards for sources installed before 1979 that use organic materials. Regulation 7.25 does the same for sources constructed after 1979.
E6: Baking oven #8 Indirect fired	4.50 MMBtu/hr	1974	6.24 7.06 STAR	
E7: Baking oven #9 Direct fired	6.23 MMBtu/hr	2005	7.09 7.25 STAR	The STAR regulations set standards for emissions and risk assessment of toxic air contaminants.
E8: Equipment cleaning process	N/A	N/A	7.25 STAR	
E9: Equipment sanitizing process	N/A	N/A	7.25 STAR	

ii. Standards/Operating Limits

(1) Opacity

- (a) Regulation 7.06, section 4.2 establishes an opacity standard of less than 20% for baking ovens 7 and 8. There are no monitoring or record keeping requirements for Opacity compliance.

(2) PM

- (a) Regulation 7.06, section 4.1.4 specifies an emission limit of 0.56 pounds per million BTU actual total heat input per oven for baking ovens 7 and 8. There are no monitoring or record keeping requirements for PM compliance.

(3) SO₂

- (a) Regulation 6.10, section 4 establishes an SO₂ standard of less than 2,000 parts per million by volume at 0% oxygen for baking oven 3. There are no monitoring or record keeping requirements for SO₂ compliance.
- (b) Regulation 7.09, section 4 establishes an SO₂ standard of less than 28.63 grains per 100 dry standard cubic feet at 0% excess oxygen for baking

ovens 2, 4, 5, and 9. There are no monitoring or record keeping requirements for SO₂ compliance.

- (c) Regulation 7.06, section 5.1.1 specifies an emission limit of 1.0 pounds per million BTU actual total heat input per oven for baking ovens 7 and 8. There are no monitoring or record keeping requirements for SO₂ compliance.

(4) TAC

- (a) As per Regulation 5.21, section 4.3, ammonia emissions discharged from each baking oven or the cleaning or sanitizing equipment shall not exceed de minimis levels per piece of equipment.

(5) VOC

- (a) Regulation 6.24, section 3.3 specifies emission limits of 3,000 pounds per day per oven and 450 pounds per hour per oven for baking ovens 3, 5, and 8. The equipment subject to Regulation 6.24 cannot exceed the emission limits in the regulation; therefore, there are no monitoring or recordkeeping requirements for this equipment.
- (b) As per Regulation 7.25, section 3.1 and the BACT Analysis submitted by the source, the VOC emissions from baking ovens 2, 4, 7, and 9 shall not exceed the following limits:

Baking Oven	VOC Emission Limit per year
Oven No. 2	10.0 tons
Oven No. 4	6.0 tons
Oven No. 7	11.0 tons
Oven No. 9	9.5 tons

- (c) Per Regulation 7.25, section 3.1, the VOC emissions from the cleaning and sanitizing equipment shall be limited to less than 5.0 tons per 12 consecutive month period. (A BACT determination is required to be performed for any future construction/modification subject to Regulation 7.25 for any emissions outside of the 5 ton per year limit.)

c. **Emission Unit U2 – Sugar Grinding**

i. **Equipment:**

Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E22: Sugar Grinding System-Bauermeister UMT 4.3	5.75 ton/hr	2009	7.08	Regulation 7.08 establishes requirements for PM for equipment installed after 9/1/1976

ii. **Standards/Operating Limits**

(1) Opacity

- (a) Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20% for this equipment.

(2) PM

- (a) The emission standard for PM at this emission point with a throughput of less than 30 tons per hour is determined in accordance with Regulation 7.08, section 3.1.2
- (b) This equipment cannot meet the PM standard uncontrolled, therefore, Regulation 2.03, section 5.1 requires that the control device shall be run at all times when the equipment is in operation and the equipment shall be operated and maintained in a manner consistent with good air pollution control practice for minimizing emissions.

d. **Emission Unit IA-1 – Boiler**

i. **Equipment:**

Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E10: York-Shipley boiler	5.02 MMBtu/hr	1989	7.06	Regulation 7.06 establishes requirements for PM and SO ₂ for indirect heat exchangers installed after 4/9/1972

ii. **Standards/Operating Limits**

(1) Opacity

- (a) Regulation 7.06, section 3.1.1 establishes an opacity standard of less than 20% for this equipment. There are no monitoring or record keeping requirements for Opacity compliance.

(2) PM

- (a) Regulation 7.06, section 4.1.4 establishes a

particulate matter limit of 0.56 pounds per million BTU actual total heat input. There are no monitoring or record keeping requirements for PM compliance.

(3) SO₂

- (a) Regulation 7.06, section 4.1.4 establishes a sulfur dioxide limit of 1.0 pounds per million BTU actual total heat input. There are no monitoring or record keeping requirements for SO₂ compliance.

e. **Emission Unit IA-2 – Miscellaneous Equipment**

i. **Equipment:**

Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E11: Evaporative condenser #1	600 gal/min	2012	7.08	Regulation 6.09 establishes requirements for PM for equipment installed before 9/1/1976
E12: Evaporative condenser #2	900 gal/min	2012	7.08	
E13: Evaporative condenser #3	900 gal/min	2012	7.08	
E14: Railcar unloading	7.5 t/hr	>2003	7.08	
E15.01: Flour silo 1	8.5 t/hr	1973	6.09 ¹	
E15.02: Flour silo 2	8.5 t/hr	1973	6.09 ¹	
E15.03: Flour silo 3	8.5 t/hr	1973	6.09 ¹	
E15.04: Flour silo 4	8.5 t/hr	1973	6.09 ¹	
E16.01: Sugar silo 1	5.5 t/hr	1973	6.09 ¹	
E16.02: Sugar silo 2	5.5 t/hr	1973	6.09 ¹	
E17.01: Old platform mixer #1 hopper	843 lb/hr	Prior to 9/1/1976	6.09 ¹	
E17.03: Hopper for Coating mixers #1&2				
E17.04: Crème mixer hopper				
E17.05: Old platform mixer #5 hopper				
E17.06: Old platform mixer #6 hopper				

¹ Initial application for this equipment was made on 12/28/2006. However, installation of the equipment occurred before 09/01/1976, the date of applicability of Regulation 7.08. Therefore, emissions from this equipment are regulated by Regulation 6.09.

Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E17.07: New platform mixer #7 hopper				Regulation 7.08 establishes requirements for PM for equipment installed after 9/1/1976
E17.08: Sugar grinder supply hopper				
E17.09: New platform mixer #9 hopper				
E17.02: Old platform mixer #2 hopper	843 lb/hr	2018	7.08	
E17.10: New platform mixer #10 hopper				
E18.01: Coating mixer #1	843 lb/hr	Prior to 9/1/1976	6.09Error! Bookmark not defined.	
E18.02: Coating mixer #2				
E18.03: Crème mixer				
E18.04: Cookie tumbler				
E18.05: Line 2 bagging				
E18.06: Old platform mixer #1		2016	7.08 ²	
E18.07: Old platform mixer #2		2018	7.08 ³	
E18.08: Old platform mixer #5		Prior to 9/1/1976	6.09Error! Bookmark not defined.	
E18.09: Old platform mixer #6				
E18.10: New platform mixer #7				
E18.11: New platform mixer #9				
E18.12: New platform mixer #10				
E19: Raw material hand mixing	100 lb/hr			
E20: Sugar Use Bin	843 lb/hr	2018	7.08	

² When this equipment was replaced it became subject to regulation 7.08 rather than 6.09. The emission standard became more stringent at that time. The equipment was determined to meet the new standard uncontrolled.

³ When this equipment was replaced it became subject to regulation 7.08 rather than 6.09. The emission standard became more stringent at that time. The equipment was determined to meet the new standard uncontrolled.

ii. **Standards/Operating Limits**

(1) Opacity

- (a) Regulation 6.09, section 3.1 and regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20% for this equipment. There are no monitoring or record keeping requirements for Opacity compliance.

(2) PM

- (a) The emission standard for PM at each emission point constructed before September 1, 1976 with a process throughput of less than 30 tons per hour is determined in accordance with Regulation 6.09, section 3.2. There are no monitoring or record keeping requirements for PM compliance.
- (b) The emission standard for PM at each emission point constructed after September 1, 1976 with a process throughput of less than 30 tons per hour is determined in accordance with Regulation 7.08, section 3.1.2. There are no monitoring or record keeping requirements for PM compliance.

f. **Emission Unit IA-3 – Invert Sugar Process**

i. **Equipment:**

Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E9: Invert sugar process	3 batch/day	Prior to 2012	STAR	The STAR regulations establish requirements for TAC (Chlorine) emissions

ii. **Standards/Operating Limits**

(1) TAC

- (a) As per Regulation 5.21, section 4.3, ammonia emissions discharged from each baking oven or the cleaning or sanitizing equipment shall not exceed de minimis levels per piece of equipment.

III. Other Requirements

1. Temporary Sources:

The source did not request to operate any temporary facilities.

2. Short Term Activities:

The source did not report any short-term activities.

3. Emissions Trading:

N/A

4. Alternative Operating Scenarios:

The source did not request any alternative operating scenarios.

5. Compliance History:

There is no record of enforcement activity on file

6. Calculation Methodology or Other Approved Method:

The emissions shall be calculated according to the methodology shown of the following pages or another method approved in writing by the District. Emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc.) or hours of operation of the equipment by the appropriate emission factor and take into account control devices, if applicable. For Insignificant Activities, , the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table as the annual emission for each piece of equipment that is designated as an IA rather than recording annual throughputs and calculating actual annual emissions for such equipment.

Equipment	Emission Point	Emission Calculation																									
U1 Baking Ovens	E1 – E7	<u>Natural Gas Emissions:</u> $emission \left(\frac{ton}{yr} \right) = ((natural\ gas\ thruput[MMcf]) \times EF) / 2000$																									
		Emission Factors																									
		<table><tr><th>Pollutant</th><th>EF (lb/MMcf)</th><th></th><th>Pollutant</th><th>EF (lb/MMcf)</th></tr><tr><td>NOx</td><td>100</td><td></td><td>SO2</td><td>0.6</td></tr><tr><td>CO</td><td>84</td><td></td><td>VOC</td><td>5.5</td></tr><tr><td>PM/PM10</td><td>0.52</td><td></td><td>NH3</td><td>3.2</td></tr><tr><td>Pb</td><td>0.0005</td><td></td><td>Total HAP</td><td>1.888</td></tr></table>	Pollutant	EF (lb/MMcf)		Pollutant	EF (lb/MMcf)	NOx	100		SO2	0.6	CO	84		VOC	5.5	PM/PM10	0.52		NH3	3.2	Pb	0.0005		Total HAP	1.888
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Pb	0.0005		Total HAP	1.888																							
For routine compliance reporting, use only the emission factors required for those reports. All of the pollutants shown should be included if an Emission Inventory report is required by the District.																											
<u>VOC Emissions from flavoring additions:</u> $VOC \left(\frac{ton}{yr} \right) = \frac{1}{2000} \sum_{i=1}^n \left(flavoring_i \left(\frac{lb}{yr} \right) \times [(LVC_i \% \times 0.2) + EtOH_i \%] \right)$																											

Where
LVC = low-volatile compounds in flavoring *i*
EtOH = ethanol in flavoring *i*
0.2 = fraction of LVC that is emitted from product

<u>Ammonia emissions from leavening (TAC emissions):</u> $NH_3 \left(\frac{ton}{yr} \right) = \frac{1}{2000} \sum_{i=1}^n \left[recipe_i \left(\frac{lb}{yr} \right) \times (NH_4HCO_3)_i \% \times 0.2154 \right]$
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Where
0.2154 = ammonia emission factor for ammonium bicarbonate

Equipment	Emission Point	Emission Calculation
U1 Cleaning and Sanitizing	E8, E9	$VOC \left(\frac{lb}{yr} \right) = \left[usage \left(\frac{gal}{yr} \right) \right] \times \left[density \left(\frac{lb}{gal} \right) \right] \times \%VOC$ <p style="text-align: center;">or</p> $VOC \left(\frac{lb}{yr} \right) = \left(usage \left(\frac{lb}{yr} \right) \right) \times \%VOC$ <p style="text-align: center;">AND</p> $HAP \left(\frac{lb}{yr} \right) = \left[usage \left(\frac{gal}{yr} \right) \right] \times \left[density \left(\frac{lb}{gal} \right) \right] \times \%HAP$ <p style="text-align: center;">or</p> $HAP \left(\frac{lb}{yr} \right) = \left(usage \left(\frac{lb}{yr} \right) \right) \times \%HAP$ <ul style="list-style-type: none"> • The % VOC and %HAP should be obtained from the MSDS. • Emission determination must be made individually for each cleaning and sanitizing product used and the individual emissions totaled. The total should be divided by 2000 to obtain total emissions in tons per year.
U2 Sugar Grinding system	E22	$PM \text{ and } PM_{10} \left(\frac{ton}{yr} \right) = \left[\left(throughput \left(\frac{ton}{yr} \right) \times EF \times (1 - CE) \right) / 2000 \right] \times 10\%$ <p>Where</p> <p>PM emission factor = 70 lb_{PM}/ton_{sugar} [AP42-9.9.1-2]</p> <p>PM_{10} emission factor = 35 lb_{PM}/ton_{sugar}</p> <p>$CE = 98\%$</p> <p>10% = amount of sugar dust leaving the enclosed grinding system</p> $PM_{10} = PM / 2$

Equipment	Emission Point	Emission Calculation																																																		
IA-1 York Shipley boiler	E10	Natural Gas Emissions: $emission\left(\frac{ton}{yr}\right)=((natural\ gas\ thruput[MMcf])\times EF)/2000$ Emission Factors <table><tr><th>Pollutant</th><th>EF (lb/MMcf)</th><th></th><th>Pollutant</th><th>EF (lb/MMcf)</th></tr><tr><td>NOx</td><td>100</td><td></td><td>SO₂</td><td>0.6</td></tr><tr><td>CO</td><td>84</td><td></td><td>VOC</td><td>5.5</td></tr><tr><td>PM/PM₁₀</td><td>0.52</td><td></td><td>NH₃</td><td>3.2</td></tr><tr><td>Pb</td><td>0.0005</td><td></td><td>Total HAP</td><td>1.888</td></tr></table> <p>For routine compliance reporting, use only the emission factors required for those reports. All of the pollutants shown should be included if an Emission Inventory report is required by the District</p> <p>Instead of performing calculations, you may use PTE –</p> <table><tr><th>Pollutant</th><th>Tons/year</th><th></th><th>Pollutant</th><th>Tons/year</th></tr><tr><td>NOx</td><td>2.16</td><td></td><td>SO₂</td><td>0.01</td></tr><tr><td>CO</td><td>1.81</td><td></td><td>VOC</td><td>0.12</td></tr><tr><td>PM/PM₁₀</td><td>0.01</td><td></td><td>NH₃</td><td>0.07</td></tr><tr><td>Pb</td><td>10⁻⁵</td><td></td><td>Total HAP</td><td>0.04</td></tr></table>	Pollutant	EF (lb/MMcf)		Pollutant	EF (lb/MMcf)	NOx	100		SO ₂	0.6	CO	84		VOC	5.5	PM/PM ₁₀	0.52		NH ₃	3.2	Pb	0.0005		Total HAP	1.888	Pollutant	Tons/year		Pollutant	Tons/year	NOx	2.16		SO ₂	0.01	CO	1.81		VOC	0.12	PM/PM ₁₀	0.01		NH ₃	0.07	Pb	10 ⁻⁵		Total HAP	0.04
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IA-2 Evaporative coolers	E11 – E13	$PM = PM_{10} = coolant\ flow\left(\frac{gal}{min}\right)\times TDS\times DFR\times\left(\frac{hr}{yr}\right)\times K$ <p>Where</p> <p><i>TDS</i> = average total dissolved solids in coolant (assume 20600 ppm)</p> <p><i>DFR</i> = drift flow rate, defined by manufacturer as 0.004%</p> <p>$\frac{hr}{yr}$ = operating hours per year, assume 8760</p> <p><i>K</i> = 2.5×10⁻⁷, constant including factors to convert gal/hr and ppm dissolved solids to tons/yr</p> <p>Instead of performing calculations, you may use PTE –</p> <p>E11 – 1.08 tons/yr</p> <p>E12 – 1.62 tons/yr</p> <p>E13 – 1.62 tons/yr</p>																																																		

Equipment	Emission Point	Emission Calculation
IA-2 Railcar unloading	E14	$PM \text{ and } PM_{10} \left(\frac{ton}{yr} \right) = throughput \left(\frac{ton}{yr} \right) \times EF \times (1 - CE)$ <p>Where</p> <p>PM emission factor = 0.025 lb/ton (AP42-9.9.1-1)</p> <p>PM_{10} emission factor = 0.0063 lb/ton</p> <p>$CE = 95\%$</p> <p>Instead of performing calculations, you may use PTE –</p> <p>E14 – $PM = 0.82$ tons/yr</p> <p>$PM_{10} = 0.21$ tons/yr</p>
IA-2 Flour Silos	E15a – E15d	$PM \text{ and } PM_{10} \left(\frac{ton}{yr} \right) = throughput \left(\frac{ton}{yr} \right) \times EF \times (1 - CE)$ <p>Where</p> <p>PM emission factor = 0.025 lb/ton (AP42-9.9.1-1)</p> <p>PM_{10} emission factor = 0.063 lb/ton</p> <p>$CE = 95\%$</p> <p>Instead of performing calculations, you may use PTE –</p> <p>E15.xx – $PM = 0.93$ ton/yr each</p> <p>$PM_{10} = 0.23$ ton/yr each</p>
IA-2 Sugar Silos	E16a – E16b	$PM \text{ and } PM_{10} \left(\frac{ton}{yr} \right) = throughput \left(\frac{ton}{yr} \right) \times EF \times (1 - CE)$ <p>Where</p> <p>PM emission factor = 0.025 lb/ton (AP42-9.9.1-1)</p> <p>PM_{10} emission factor = 0.063 lb/ton</p> <p>$CE = 95\%$</p> <p>Instead of performing calculations, you may use PTE –</p> <p>E16.xx – $PM = 0.60$ ton/yr each</p> <p>$PM_{10} = 0.15$ ton/yr each</p>

Equipment	Emission Point	Emission Calculation
IA-2 Process Hoppers	E17a – E17j	$PM \text{ and } PM_{10} \left(\frac{ton}{yr} \right) = throughput \left(\frac{ton}{yr} \right) \times EF \times (1 - CE)$ <p>Where</p> $PM \text{ emission factor} = 0.061 \text{ lb/ton (AP42-9.9.1-1)}$ $PM_{10} \text{ emission factor} = 0.034 \text{ lb/ton}$ $CE = 98\%$ <p>Instead of performing calculations, you may use PTE –</p> $E17.xx - PM = 0.11 \text{ ton/yr each}$ $PM_{10} = 0.06 \text{ ton/yr each}$
IA-2 Process Mixers, Cookie tumbler, Line 2 bagging, and raw material hand mixing	E18.01 – E18.12 and E19	$PM \text{ and } PM_{10} \left(\frac{ton}{yr} \right) = throughput \left(\frac{ton}{yr} \right) \times EF \times (1 - CE)$ <p>Where</p> $PM \text{ emission factor} = 0.061 \text{ lb/ton (AP42-9.9.1-1)}$ $PM_{10} \text{ emission factor} = 0.034 \text{ lb/ton}$ $CE = 95\%$ <p>Instead of performing calculations, you may use PTE –</p> $E18x - PM = 0.28 \text{ ton/yr each}$ $PM_{10} = 0.16 \text{ ton/yr each}$

Equipment	Emission Point	Emission Calculation
IA-2 Sugar Use Bin	E20	$PM \text{ and } PM_{10} \left(\frac{ton}{yr} \right) = throughput \left(\frac{ton}{yr} \right) \times EF \times (1 - CE) \times SF$ <p>Where PM emission factor = 0.061 lb/ton (AP42-9.9.1-1) PM_{10} emission factor = 0.034 lb/ton $CE = 0\%$ $SF = 10\%$ (90% of material is > 150μm and not counted as PM)</p> <p>Instead of performing calculations, you may use PTE – $E20 - PM = 0.041$ ton/yr each $PM_{10} = 0.002$ ton/yr each</p>
IA-3 Invert Sugar Process	E23	<p>TAC emissions:</p> $Cl \left(\frac{ton}{yr} \right) = \frac{fl\ oz\ HCl}{batch} \times \frac{\#\ batches}{year} \times K$ <p>Where K = 0.03 is a constant factor to convert the volume of HCl added to the mass of chlorine emitted, as documented in the District PTE calculations.</p> <p>Instead of performing calculations, you may use PTE – $Cl = 0.52$ tons/year</p>

7. Insignificant Activities

Equipment	Qty.	PTE (ton/yr)	Basis for regulation
York Shipley natural gas-fired boiler [IA-1]	1	NOx 2.16	Regulation 1.02, Appendix A
Evaporative condenser #1; XLP XL-415 [IA-2]	1	PM ₁₀ 1.08	Regulation 1.02
Evaporative condenser #2; XLP XL-630 [IA-2]	1	PM ₁₀ 1.62	Regulation 1.02
Evaporative condenser #3; XLP XL-660 [IA-2]	1	PM ₁₀ 1.62	Regulation 1.02
Railcar unloading [IA-2]	1	PM ₁₀ 0.21	Regulation 1.02

Equipment	Qty.	PTE (ton/yr)	Basis for regulation
Flour silos [IA-2]	4	PM ₁₀ 0.23 each	Regulation 1.02
Sugar silos [IA-2]	2	PM ₁₀ 0.15 each	Regulation 1.02
Process hoppers [IA-2]	10	PM ₁₀ 0.06 each	Regulation 1.02
Process mixer #1 [IA-2]	1	PM ₁₀ 0.16	Regulation 1.02
Process mixers #2 - #12 [IA-2]	9	PM ₁₀ 0.06 Each	Regulation 1.02
Cookie Tumbler [IA-2, E18.04]	1	PM ₁₀ 0.06	Regulation 1.02
Line 2 Bagging [IA-2, E18.05]	1	PM ₁₀ 0.06	Regulation 1.02
Raw material hand mixing [IA2, E19]	1	PM ₁₀ 0.06	Regulation 1.02
Sugar use bin [IA-2]	1	PM ₁₀ 0.002	Regulation 1.02
Invert sugar process [IA-3]	1	HAP Cl ₂ 0.45	Regulation 1.02, Appendix A

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
6. The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.